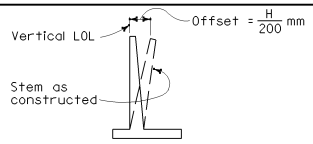
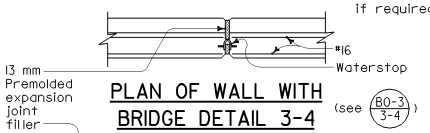


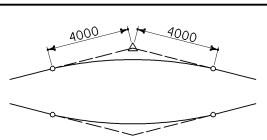
APPROXIMATE WALL OFFSET VALUES

Not required for wall Types 3 and 4. Values for offseting forms to be determined by the Engineer.

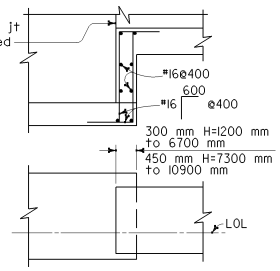


PLAN OF WALL WITH BRIDGE DETAIL 3-4

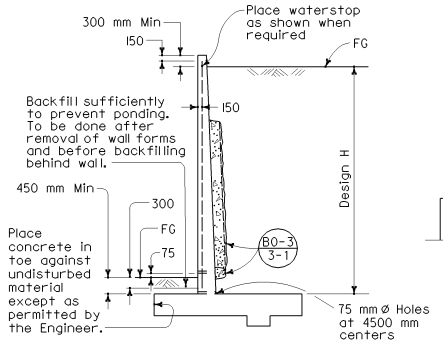
PLAN OF WALL WITH EXPANSION JOINT ONLY



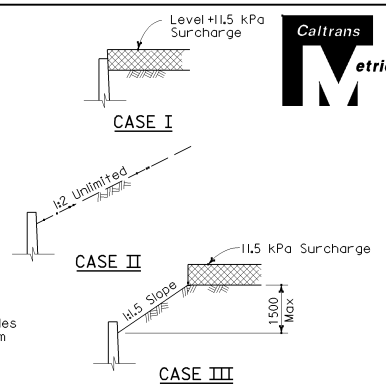
8000 mm VC AT TOP OF WALL SLOPE CHANGE



FOOTING STEP



DESIGN AND DRAINAGE



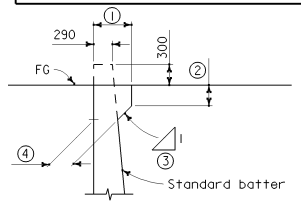
DETAIL OF DESIGN LOADING CASES

Case I Level +11.5 kPa surcharge

Case II 1:2 Unlimited slope

Case III 1:1.5 Limited slope (1500 max height) +11.5 kPa surcharge

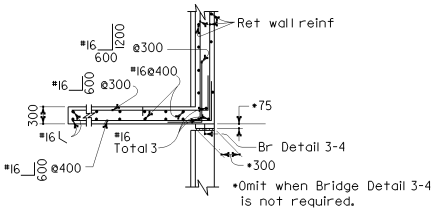
NOTE: Surcharge Limits Shown Apply To Retaining Walls Type 1 and 3.



Dimensions ①, ② and ③ to be as shown elsewhere in the Project Plans.

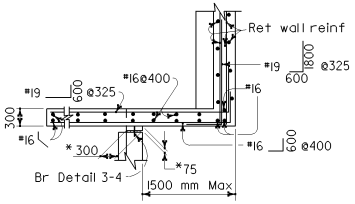
④ Stem width at base of haunch to be determined as shown.

STEM WIDTH AT BASE OF HAUNCH



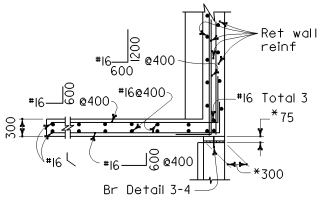
PLAN

(For return wall Type "A")



PLAN

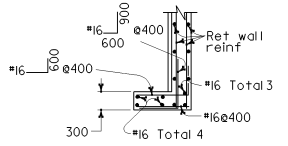
(For return wall Type "B")



*Omit when Bridge Detail 3-4 is not required.

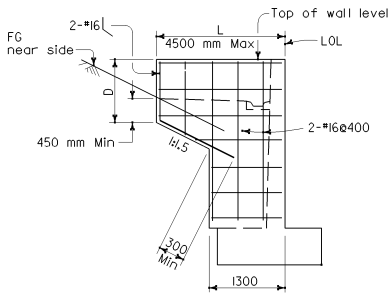
PLAN

(For return wall Type "C")



PLAN

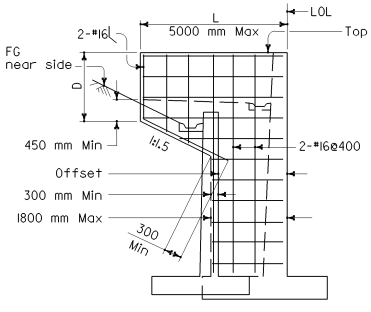
(For return wall Type "D")



ELEVATION

RETURN WALL TYPE "A"

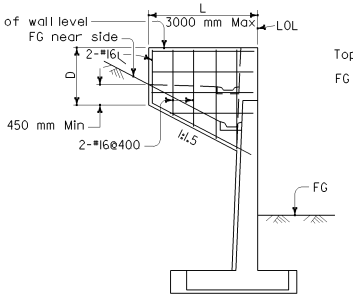
Use where H=2400 mm or less



ELEVATION

RETURN WALL TYPE "B"

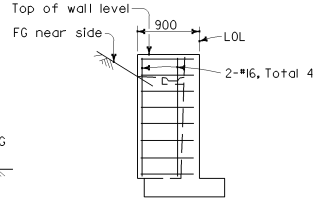
Use where H=3000 mm or more on offset walls



ELEVATION

RETURN WALL TYPE "C"

Use where H=3000 or more on straight walls



ELEVATION

RETURN WALL TYPE "D"

Use where H=1800 or less

NOTES

Design Conditions:

Design H may be exceeded by 150 millimeters before going to the next size. Special footing design is required where foundation material is incapable of supporting toe pressure listed in table.

Return wall not required unless shown elsewhere.

Design Data:

f_c = 10 MPa f_c = 25 MPa f_s = 168 MPa

n = 10 earth = 19 kN/m^3

11.5 kPa surcharge:

Equivalent fluid pressure =

5.6 kPa/m maximum for determination of toe pressure.

4.2 kPa/m minimum for determination of heel pressure.

Earth pressures for 1:2 unlimited slope, 1:1.5 slope, and 1:1.5 unlimited slope, determined from Rankine's formula with Ø=33°-42'.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAILS No. 1

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

B3-8

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Duncomer Y. Hor
REGISTERED CIVIL ENGINEER

July 1, 2004
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Duncomer Y. Hor
No. 45803
Exp. 12-31-06
CIVIL
STATE OF CALIFORNIA

To get to the Caltrans web site, go to: http://www.dot.ca.gov

2004 Std PLAN B3-8

06-08-04